In the Claims:

Claims 1 to 12 are of record in the case.

Claims 1, 4, 5 and 7-12 stand rejected.

Claims 2, 3 and 6 are objected to.

Explanation of Amendments in the Claims:

1.(currently amended) A greenhouse comprising:

an exterior wall structure having an end wall and two side walls at right angles to the end wall, each of which includes primarily transparent panels allowing entry to an interior of natural light;

a plurality of elongate parallel benches located side by side within the interior at right angles to the end wall and arranged to provide generally horizontal support surfaces for supporting plant materials thereon for receiving the natural light and growing within the interior;

and a lighting system for supplying artificial light to the plant materials on the support surfaces comprising:

a plurality of lighting fixtures;

a plurality of rails arranged in parallel spaced positions in a common horizontal plane at a height above the benches with the rails of the plurality of rails extending parallel to the benches and with the rails of the plurality of rails including at least one intermediate rail and two side rails each adjacent a respective one of the side walls;

each rail supporting a plurality of the plurality of lighting fixtures in a row along the rail;

each of the plurality of lighting fixtures comprising:

a mounting member for attachment to the respective rail;

a generally parabolic reflector carried on the mounting member so as to be depended facing generally downwardly toward the plant material for directing light toward the plant material;

the generally parabolic reflector having a cross-section which is substantially constant along a parabolic axis thereof;

a lighting bulb support for receiving and supporting a bulb at a position within the generally parabolic reflector such that light therefrom is reflected by the generally parabolic reflector;

wherein the mounting member of each of the plurality of lighting fixtures is pivotal relative to the generally parabolic reflector about an axis generally parallel to a parabolic axis of the generally parabolic reflector ~~relative to the parabolic reflector~~ and to the lighting bulb support so as to adjust the angle of the ~~directed~~ light directed in a lighting direction relative to the rail;

wherein the plurality of the lighting fixtures mounted on said at least one intermediate rail has the lighting fixtures thereof adjusted such that the lighting direction thereof is maintained at a fixed direction angled vertically downwardly;

and wherein ~~that row of~~ the plurality of the lighting fixtures mounted on each of the two side rails ~~adjacent each side wall~~ has the lighting fixtures thereof adjusted such that the lighting direction thereof is maintained at a fixed direction angled downwardly and inwardly ~~of~~ away from the respective side wall.

2.(currently amended) ~~The greenhouse according to Claim 1~~ A greenhouse comprising:

an exterior wall structure having an end wall and two side walls at right angles to the end wall, each of which includes primarily transparent panels allowing entry to an interior of natural light;

a plurality of elongate parallel benches located side by side within the interior at right angles to the end wall and arranged to provide generally horizontal support surfaces for supporting plant materials thereon for receiving the natural light and growing within the interior;

and a lighting system for supplying artificial light to the plant materials on the support surfaces comprising:

a plurality of lighting fixtures;

a plurality of rails arranged in parallel spaced positions in a common horizontal plane at a height above the benches with the rails of the plurality of rails extending parallel to the benches and with the rails of the plurality of rails including two side rails each adjacent a respective one of the side walls;

each rail supporting a plurality of the plurality of lighting fixtures in a row along the rail;

each of the plurality of lighting fixtures comprising:

a mounting member for attachment to the respective rail;

a generally parabolic reflector carried on the mounting member so as to be depended facing generally downwardly toward the plant material for directing light toward the plant material;

the generally parabolic reflector having a cross-section which is substantially constant along a parabolic axis thereof;

a lighting bulb support for receiving and supporting a bulb at a position within the generally parabolic reflector such that light therefrom is reflected by the generally parabolic reflector;

wherein the mounting member of each of the plurality of lighting fixtures is pivotal relative to the generally parabolic reflector about an axis generally parallel to a parabolic axis of the generally parabolic reflector and to the lighting bulb support so as to adjust the angle of the light directed in a lighting direction relative to the rail;

and wherein the plurality of the lighting fixtures mounted on each of the two side rails has the lighting fixtures thereof adjusted such that the lighting direction thereof is angled downwardly and inwardly away from the respective side wall;

wherein the lighting bulb support is movable relative to the generally parabolic reflector so as to move the bulb within ~~the~~ an axial plane of the generally parabolic reflector so as to move the bulb relative to the parabolic axis.

3.(currently amended) The greenhouse according to Claim 2 wherein the generally parabolic reflector has end walls at right angles to the axial plane and the lighting bulb support is movable along the end walls.

4.(currently amended) The greenhouse according to Claim 1 wherein the generally parabolic reflector has a ~~generally parabolic shape with a~~ recessed notch in the generally parabolic reflector at the axial plane.

5.(currently amended) The greenhouse according to Claim ~~4~~ 4 wherein the recessed notch is V-shaped.

6.(currently amended) The greenhouse according to Claim 1 A greenhouse comprising:

an exterior wall structure having an end wall and two side walls at right angles to the end wall, each of which includes primarily transparent panels allowing entry to an interior of natural light;

a plurality of elongate parallel benches located side by side within the interior at right angles to the end wall and arranged to provide generally horizontal support surfaces for supporting plant materials thereon for receiving the natural light and growing within the interior;

and a lighting system for supplying artificial light to the plant materials on the support surfaces comprising:

a plurality of lighting fixtures;

a plurality of rails arranged in parallel spaced positions in a common horizontal plane at a height above the benches with the rails of the plurality of rails extending parallel to the benches and with the rails of the plurality of rails including two side rails each adjacent a respective one of the side walls;

each rail supporting a plurality of the plurality of lighting fixtures in a row along the rail;

each of the plurality of lighting fixtures comprising:

a mounting member for attachment to the respective rail;

a generally parabolic reflector carried on the mounting member so as to be depended facing generally downwardly toward the plant material for directing light toward the plant material;

the generally parabolic reflector having a cross-section which is substantially constant along a parabolic axis thereof;

a lighting bulb support for receiving and supporting a bulb at a position within the generally parabolic reflector such that light therefrom is reflected by the generally parabolic reflector;

wherein the mounting member of each of the plurality of lighting fixtures is pivotal relative to the generally parabolic reflector about an axis generally parallel to a parabolic axis of the generally parabolic reflector and to the lighting bulb support so as to adjust the angle of the light directed in a lighting direction relative to the rail;

and wherein the plurality of the lighting fixtures mounted on each of the two side rails has the lighting fixtures thereof adjusted such that the lighting direction thereof is angled downwardly and inwardly away from the respective side wall;

wherein the generally parabolic reflector has end walls at right angles to ~~the~~ an axial plane of the parabolic axis and has inclined ends panels extending from the end walls inwardly and upwardly toward an apex at a ~~the~~ top of the generally parabolic ~~shape~~ reflector.

7.(original) The greenhouse according to Claim 1 wherein the end wall has a plurality of posts at spaced positions along the end wall and there are provided beams mounted on the posts and extending parallel to the side walls between the side walls and wherein the rails include a plurality of inner rails aligned with posts and beams and two outer rails each adjacent a respective one of the side walls.

8.(original) The greenhouse according to Claim 7 wherein the rails are interconnected to form an array and are suspended from the beams for common height adjustment of the array.

9.(original) The greenhouse according to Claim 8 wherein the rail height is adjustable to provide an adjustable spacing from top of crop material so that the height can be adjusted to provide a predetermined spacing from the crop as the crop material grows and wherein the reflectors of the array are designed to maximize light intensity at the predetermined spacing.

10 (original) The greenhouse according to Claim 9 wherein the predetermined spacing is of the order of 5 feet.

11.(cancelled)

12.(cancelled)